

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Nicola Da Dalt

Serial No.: 10/541,049

Filed: February 13, 2006

Docket No. 1435.128.101/12928US

Title: DEVICE AND METHOD FOR FREQUENCY SYNTHESIS

IN THE CLAIMS

Please add claim 40.

Please amend claim 24 as follows:

1-16. (Cancelled)

17. (Previously Presented) A device for frequency synthesis comprising:
an oscillator driven for generating, at a frequency out of a set of at least two possible output frequencies, an output signal; and
a control device for driving the oscillator, wherein
the control device, for the purpose of generating a desired frequency that is not included in the set of possible output frequencies is configured to drive the oscillator to alternately generate at least two different output frequencies, out of the set of possible output frequencies, such that an average value of the generated output frequencies over a certain time period is substantially the desired frequency, wherein the control device is configured to drive the oscillator such that the at least two generated output frequencies are alternated at an average frequency that is less than the at least two possible output frequencies.

18. (Previously Presented) The device of claim 17, wherein the control device is configured to drive the oscillator with a bit stream generated according to a delta-sigma-principle.

19. (Previously Presented) The device of claim 17, wherein the control device is configured to drive the oscillator such that the at least two generated output frequencies are alternated at an average frequency that is greater than the reciprocal value of the certain time period.

20.-21 (Cancelled)

22. (Previously Presented) The device of claim 17, wherein the oscillator comprises a digitally controlled oscillator.

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23. (Previously Presented) The device of claim 17, wherein the oscillator comprises a ring oscillator, wherein a current, out of a set of possible currents, can be supplied to the ring oscillator for the purpose of driving the ring oscillator.

24. (Currently Amended) The device of claim 17, wherein the device comprises a frequency divider connected to the output of the oscillator and configured to cause the certain time period to be extended.

25. (Previously Presented) The device of claim 17, wherein the device is of digital design.

26.-28. (Cancelled)

29. (Previously Presented) A method for frequency synthesis comprising:
providing an oscillator driven to generate an output signal having an output frequency out of a set of possible output frequencies;
driving the oscillator for the purpose of generating a desired frequency that is not included in the set of possible output frequencies, in such a way that the oscillator alternately generates at least two different output frequencies, out of the set of possible output frequencies, such that the average value of the at least two generated output frequencies over a certain time period corresponds to the desired frequency; and
alternating the at least two generated output frequencies at an average frequency that is less than the at least two different output frequencies.

30. (Previously Presented) The method of claim 29, wherein driving the oscillator comprises driving the oscillator with a bit stream generated according to a delta-sigma-principle.

31. (Previously Presented) The method of claim 29, comprising alternating the at least two

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generated

output frequencies at an average frequency that is greater than the reciprocal value of the certain time period.

32.-39. (Cancelled)

40. (New) The method of claim 29 comprising:

dividing the frequency of the output signal generated by the oscillator to cause the certain time period to be extended.